Chris Christie, Governor
Kim Guadagno, Lieutenant Governor
Richard T. Hammer, Acting Commissioner
Dennis J. Martin, Interim Executive Director

NJTRANSIT
One Penn Plaza East
Newark, NJ 07105-2246
973-491-7000

March 31, 2016

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: WT Docket No. 12-40

Dear Ms. Dortch,

New Jersey Transit Corporation, an instrumentality of the State of New Jersey, established pursuant to N.J.S.A. 27:25-1 et. seq., with its principal offices located at One Penn Plaza East, Newark, New Jersey 07105-2246 (hereinafter "NJ TRANSIT"), is New Jersey's public transportation corporation. Its mission is to provide safe, reliable, convenient and cost-effective transit service and be the vehicle to connect New Jerseyans with employment, education, health care and recreational opportunities in and around the Garden State. NJ TRANSIT is vital to the state's economic and social well-being, as well as its quality of life.

NJ TRANSIT also administers several publicly funded transit programs for people with disabilities, senior citizens and people living in the state's rural areas who have no other means of transportation. In addition, the agency provides support and equipment to privately-owned contract bus carriers.

Covering a service area of 5,325 square miles, NJ TRANSIT is the nation's third largest provider of bus, rail and light rail transit, linking major points in New Jersey, New York and Philadelphia.

To safely and effectively operate and manage our large transit vehicle fleet, NJ TRANSIT is the holder of many Part 90 licenses for its digital land-mobile radio network that occupies frequencies between 854 and 860 MHz. This digital network replaced an obsolete analog system through the Sprint-Nextel rebanding program. While NJ TRANSIT was originally licensed in the old NPSPAC band (866 – 869 MHz), NJ TRANSIT, with the cooperation of Sprint and the Commission, opted for replacement channels in the 854 – 860 MHz band to implement its new system. One of the tenets of the rebanding program was that relocated operations should enjoy comparable facilities, including a comparable interference environment, when relocated to new spectrum.

It has now been the experience of NJ TRANSIT that, in fact, our situation is far worse than we had experienced with our old network and frequencies in terms of interference. We are noticing many areas where, despite adequate signal from our own system, mobile and portable radios fail to find and register on the nearby/serving NJ TRANSIT base station. This effectively renders the mobile or portable inoperable within the affected area.

Upon investigation of this situation, using various types of test equipment, NJ TRANSIT has determined the source of the interference to be high-power signals emanating from the adjacent 862 – 869 MHz band now occupied in our area by a commercial wireless operator utilizing LTE technology. We have empirical data and have made visual observations of numerous interference situations that lead to a nearby commercial wireless site. (See the attached example of a drive test towards a commercial wireless site where the test receiver loses sync from the NJ TRANSIT base station as the commercial wireless site is approached. Though not shown in this example, after passing the location, the test receiver recaptured the NJ TRANSIT base station and operated normally.)

It is clear that these high power signals, even if operating within the FCC rules, are causing receiver overload and desensitization of our public safety land mobile radios while in close proximity to the commercial wireless carriers' base stations – the classic near-far effect. This causes coverage to be lost in the immediate vicinity of these sites and creates a potential life-safety issue for the operator of the mobile or portable radio. Obviously this was not the intent of the rebanding program. However, NJ TRANSIT and many of our public safety peers that operate in the 851 – 860 MHz band are beginning to suffer serious consequences as a result of these commercial wireless operations. While a short-term solution for NJ TRANSIT may be local negotiations with the commercial wireless carrier, this is extremely burdensome and time-consuming without assurance of success. Another extremely burdensome solution may be to install small base stations in the locations where the commercial wireless signal outweighs our own in order to make our signal "louder" than the commercial wireless signal thus improving ratio between desired and undesired signal. This not only would be very costly, a burden on our taxpayers, but would impose an ongoing obligation on public safety licensees as commercial operators deploy additional sites. Most critically, this is an after-the-fact solution that may be too late to prevent the loss of an essential communication and thereby jeopardize safety of life or property.

While NJ TRANSIT has investigated the interference to its system, this is a much wider problem. Before modifying these rules, NJ TRANSIT requests that the Commission consider that the current technical standards for commercial wireless operations in the 862 – 869 MHz band permit harmful interference into adjacent public safety operations. For us, the current situation has created a far worse environment for our public safety operations than had been experienced before the rebanding process. From NJ TRANSIT's perspective, it is not a potential threat; it is a reality and currently being experienced by many public safety land mobile radio system operators and further documented in filings by other parties.

Respectfully submitted,

/s/

Andrew E. Schwartz

NJT Drive Test – 854.1125 MHz (W. Orange)